



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0153; Project Identifier MCAI-2021-01051-A]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Pilatus Aircraft Ltd. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2016-26-08, which applies to all Pilatus Aircraft Ltd. Model PC-12, PC-12/45, PC-12/47, and PC-12/47E airplanes. AD 2016-26-08 requires incorporating revisions into the airworthiness limitations section (ALS) of the maintenance program and inspecting the main landing gear (MLG) attachment bolts for cracks and corrosion. Since the FAA issued AD 2016-26-08, the European Union Aviation Safety Agency (EASA) superseded its mandatory continuing airworthiness information (MCAI) to add a new life limit for certain MLG actuator bottom attachment bolts and then superseded it again to add new life limits for the rudder bellcrank. This proposed AD would require incorporating new revisions to the ALS of the existing airplane maintenance manual (AMM) or Instructions for Continued Airworthiness (ICA) to establish a 5-year life limit for certain MLG actuator bottom attachment bolts and new life limits for the rudder bellcrank. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Pilatus Aircraft Ltd., CH-6371, Stans, Switzerland; phone: +41848247365; email: techsupport.ch@pilatus-aircraft.com; website: <https://www.pilatus-aircraft.com/>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0153; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the MCAI, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: [doug.rudolph@faa.gov](mailto:doug.rudolph@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0153; Project Identifier MCAI-2021-01051-A” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Doug Rudolph, Aviation Safety Engineer, FAA, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The FAA issued AD 2016-26-08, Amendment 39-18766 (82 FR 10859, February 16, 2017) (AD 2016-26-08) for all Pilatus Aircraft Ltd. Model PC-12, PC-12/45, PC-12/47, and PC-12/47E airplanes. AD 2016-26-08 was prompted by MCAI originated by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD 2016-0083, dated April 28, 2016, to require new maintenance tasks for the MLG attachment bolts and replacement of each MLG attachment bolt before exceeding its life limit.

AD 2016-26-08 requires incorporating revisions into the ALS of the existing FAA-approved maintenance program and inspecting the MLG attachment bolts for

cracks and corrosion. The FAA issued AD 2016-26-08 to ensure the continued operational safety of the affected airplanes.

### **Actions Since AD 2016-26-08 Was Issued**

Since the FAA issued AD 2016-26-08, Pilatus received reports of failure of MLG actuator bottom attachment bolts, part number (P/N) 532.10.12.218, identified with “VLG” on the bolt head. These parts are from a specific vendor and are subject to hydrogen embrittlement. Accordingly, EASA superseded EASA AD 2016-0083, dated April 28, 2016, and issued EASA AD 2021-0005, dated January 7, 2021, to require a new 5 year life limit for the MLG actuator bottom attachment bolt identified with “VLG.”.

Pilatus subsequently added new life limits for the rudder bellcrank. As a result, EASA superseded its AD again and issued EASA AD 2021-0214, dated September 17, 2021 (the MCAI). The MCAI states:

The airworthiness limitations and certification maintenance instructions for Pilatus PC-12 aeroplanes, which are approved by EASA, are currently defined and published in Pilatus PC-12 AMM Chapter 04-00-00. These instructions have been identified as mandatory for continued airworthiness.

Failure to accomplish these instructions could result in an unsafe condition.

Previously, EASA issued [EASA] AD 2021-0005, requiring the actions described in the Pilatus PC-12 AMM Chapter 04-00-00, Document Number 02049 Issue 01 Revision 40, Document Number 02300 Issue 01 Revision 24 and Document Number 02436 Issue 01 Revision 02.

Since that [EASA] AD was issued, Pilatus published the applicable ALS, as defined in this [EASA] AD, which contains new and/or more restrictive tasks and limitations, as specified in the Component Limitations section, to introduce a new life limit for the rudder bellcrank. Due to the introduction of this life limit, the repetitive eddy current inspections are no longer required and deleted from the Supplemental Structural Inspection section.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2021-0005, which is superseded, and requires accomplishment of the actions as specified in the applicable ALS.

You may examine the MCAI at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0153.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed the following revisions, which contain the new life limit for certain MLG actuator bottom attachment bolts and new life limits for the rudder bellcrank.

- Pilatus PC-12, PC-12/45 and PC-12/47 Structural, Component and Miscellaneous Limitations-AMM Document No. 02049, Airworthiness Limitations, 12-A-04-00-00-00A-000A-A, Revision 41, dated July 5, 2021;
- Pilatus PC-12/47E Structural, Component and Miscellaneous Limitations-AMM Document No. 2300, Airworthiness Limitations, 12-B-04-00-00-00A-000A-A, Issue 01, Revision 25, dated July 8, 2021; and
- Pilatus PC-12/47E Structural, Component and Miscellaneous Limitations-AMM Document No. 02436, Airworthiness Limitations, 12-C-04-00-00-00A-000A-A, Issue 01, Revision 03, dated July 8, 2021.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

#### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist or develop on other products of the same type design.

#### **Proposed AD Requirements in this NPRM**

This proposed AD would not retain any of the actions of AD 2016-26-08. Instead, this proposed AD would require incorporating new revisions into the ALS of the existing AMM or the FAA-approved ICA. This AD would allow the owner/operator (pilot) to incorporate these revisions. Revising an AMM is not considered a maintenance action and may be done by a pilot holding at least a private pilot certificate. This proposed action would need to be recorded in the airplane's maintenance records to show compliance with this proposed AD.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 1,030 airplanes of U.S. registry. The FAA also estimates that it would take 1 work-hour per airplane to incorporate the revised ALS into the AMM or ICA. The average labor rate is \$85 per work-hour.

Based on these figures, the FAA estimates the cost on U.S. operators to be \$87,550 or \$85 per airplane.

In addition, the FAA estimates that replacing a MLG actuator bottom attachment bolt, if necessary, would take 1 work-hour and would require parts costing \$2,140 for a cost of \$2,225 per airplane.

Replacing the rudder bellcrank, if necessary, would take 3 work-hours and would require parts costing \$550 for a cost of \$805 per airplane.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2016-26-08, Amendment 39-18766 (82 FR 10859, February 16, 2017), and

b. Adding the following new airworthiness directive:

**Pilatus Aircraft Ltd.:** Docket No. FAA-2022-0153; Project Identifier MCAI-2021-01051-A.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2016-26-08, Amendment 39-18766 (82 FR 10859, February 16, 2017).

**(c) Applicability**

This AD applies to Pilatus Aircraft Ltd. Model PC-12, PC-12/45, PC-12/47, and PC-12/47E airplanes, all serial numbers, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 2722, Rudder Actuator; 3210, Main Landing Gear; and 3211, Main Landing Gear Attach Section.

**(e) Unsafe Condition**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The unsafe condition in the MCAI is failure of main landing gear (MLG) actuator bottom attachment bolts and failure to accomplish a new life limit for the rudder bellcrank. The FAA is issuing this AD to prevent MLG collapse during all phases of airplane operations, including take-off and landing and also to prevent rudder bellcrank failure, which could lead to loss of airplane control.

**(f) Actions and Compliance**

(1) Before further flight, unless already done, revise the Airworthiness Limitations section of the existing airplane maintenance manual or Instructions for Continued Airworthiness for your airplane by incorporating the following documents.

(i) For Model PC-12, PC-12/45, and PC-12/47 airplanes: Pilatus PC-12, PC-12/45 and PC-12/47 Structural, Component and Miscellaneous Limitations-AMM Document No. 02049, Airworthiness Limitations, 12-A-04-00-00-00A-000A-A, Revision 41, dated July 5, 2021.

(ii) For Model PC-12/47E airplanes with serial numbers 545, 1001 through 1719, and 1721 through 1999: Pilatus PC-12/47E Structural, Component and Miscellaneous Limitations-AMM Document No. 2300, Airworthiness Limitations, 12-B-04-00-00-00A-000A-A, Issue 01, Revision 25, dated July 8, 2021.

(iii) For Model PC-12/47E airplanes with serial numbers 1720 and 2001 and larger: Pilatus PC-12/47E Structural, Component and Miscellaneous Limitations-AMM Document No. 02436, Airworthiness Limitations, 12-C-04-00-00-00A-000A-A, Issue 01, Revision 03, dated July 8, 2021.



(2) The actions required by paragraph (f)(1) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4), and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(3) After revising the airworthiness limitations required by paragraph (f)(1) of this AD, no alternative life limits or inspection intervals may be used unless they are approved as provided in paragraph (g) of this AD.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (h)(1) of this AD and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(h) Related Information**

(1) For more information about this AD, contact Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: doug.rudolph@faa.gov.

(2) Refer to MCAI European Union Aviation Safety Agency (EASA) AD 2021-0214, dated September 17, 2021, for related information. You may examine the EASA AD in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0153.

(3) For service information identified in this AD, contact Pilatus Aircraft Ltd., CH-6371, Stans, Switzerland; phone: +41848247365; email: techsupport.ch@pilatus-aircraft.com; website: <http://www.pilatus-aircraft.com/>. You may view this service

information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on March 7, 2022.

Derek Morgan, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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